

REMARKS

Claims 1-15 are pending in this application.¹ Claims 1, 6, 12 have been amended. As to the amendment, see Applicant's specification at page 11, lines 14-18; page 19, lines 11-14; page 21, lines 16-22; pages 23-29.

Claims 1, 5-7, 11-12, and 15 again have been rejected under 35 USC 102(b) as being anticipated by US Patent 6,084,994 to Li et al. The Examiner cites Li's Figs. 2, 5 and 6. Claims 2-3, 8-9, and 13-14 again have been rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. in view of US Patent 5,943,149 to Cearns et al. These rejections are traversed.

To directly respond to the Examiner's question at page 5 of the final office action, there was a typographical error in claim 1 in the 111 Amendment. The original claim 1 recites "a refractive index distribution constant" and that is what is claimed, as shown herein.

Basically, Applicants' claimed invention is directed to adjust the angle of the light incident to the optical filter to obtain a desired wavelength bandwidth of transmitted or reflected light. The range of the optical filter is not flexible. Therefore, the incident light is adjusted to tune the range of the filter. To adjust the angle of the incident light, the invention uses a property of the graded index lens (more specifically, the refractive index distribution constant).

For example, Applicants' Claim 1 recites a "wavelength selective optical device comprising: a first graded index rod lens having a first end surface thereof on which a divergent light is incident, and a second end surface thereof from which a parallel light" (i.e., collimated light) "beam is emitted; and an optical filter having a predetermined range of a pass bandwidth or a reflecting bandwidth arranged to face to the second end surface of the first graded index rod lens so that the parallel light" (i.e., collimated light) "beam emitted from the first graded index rod lens is incident on the optical filter; wherein an angle of the parallel light" (i.e., collimated light) "incident on the optical filter is adjusted

¹Claim 1, line 11 now correctly recites "constant" as in original claim 1, line 11; the recitation of "contrast" in a previous response was a typographical error. Likewise, incorrect words inserted in the previous response have been fixed, e.g., claim 1 (extra "which"), claim 4 ("on" rather than "one" as in original claim 4), claim 5 ("wherein"); claims 6, 7 ("a"), claim 12 ("to"), claim 13 (extra period).

by changing a refractive index distribution constant of the first graded_index rod lens such that a wavelength range of the light which is reflected or transmitted by the optical filter is tuned within the desired range.”

The cited reference, Li, merely teaches the conventional way to adjust the incident light similarly to the references discussed in the background section of Applicant’s specification.

The differences between the prior art and Applicants’ claimed invention are clearly seen in independent claims 1, 6 and 12 as amended. Applicants’ optical filter has a fixed bandwidth, and the angle of the incident light is adjusted by changing the refractive index constant of the lens.

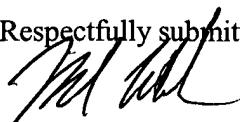
Moreover, Applicant’s claimed invention provides unexpectedly superior results over embodiments of what the Examiner cites as the closest art, Li. Li’s devices require manipulation of the incident angle of light to achieve tuning. However, Applicant’s inventive devices achieve tuning without manipulation of the incident angle of light. Such unexpectedly superior results for Applicant’s inventive devices support the non-obviousness of Applicant’s claimed invention.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-15 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees for the petition or for entry of this amendment to Attorney’s Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson P.C.).

Respectfully submitted,



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